

WHAT IS CLAIMED IS:

1. A network for telephony and data communication comprising:

(One) at least one electrically-conductive segment containing at least two distinct electrical conductors operative to conducting a low-frequency telephony band and at least one high-frequency data band, each of said segments having a respective first end and a respective second end;

(Two) a first low pass filter connected in series to the respective first end of each of said segments, for establishing a low-frequency path for said low-frequency telephony band;

(Three) a second low pass filter connected in series to the respective second end of each of said segments, for establishing a low-frequency path for said low-frequency telephony band;

(Four) a first high pass filter connected in series to the respective first end of each of said segments, for establishing a high-frequency path for said at least one high-frequency data band;

(Five) a second high pass filter connected in series to the respective second end of each of said segments, for establishing a high-frequency path for said at least one high-frequency data band; and

(Six) at least two outlets each operative to connecting at least one telephone device to at least one of said low-frequency paths, and at least two of said at least two outlets being operative to connecting at least one data device to at least one of said high-frequency paths;

wherein:

each of said paths electrically connects two of said outlets; and

each of said outlets that is coupled to more than one of said segments connects said low-frequency telephony paths among each of said coupled segments.

2. The network as in claim 1 wherein at least one of said
5 segments is a telephone line.

3. The network as in claim 1 wherein the telephony is analog telephony.

4. The network as in claim 1 wherein:
(One) the telephony is ISDN;
10 (Two) said segments contain at least four separate electrical conductors; and
(Three) at least two of said distinct electrical conductors are operative to carrying data.

5. The network as in claim 1, wherein at least one of said high-
15 frequency band is operative to carrying analog communication.

6. The network as in claim 1, wherein at least one of said low pass filter is internal to one of said outlets.

7. The network as in claim 1, wherein at least one of said low pass filter is external to all of said outlets.

8. The network as in claim 1, wherein at least one of said high
20 pass filter is internal to one of said outlets.

9. The network as in claim 1, wherein at least one of said high-frequency is external to all of said outlets.

10. The network as in claim 1, comprising a plurality of said segments and at least three of said outlets.

11. The network as in claim 10, wherein said first low pass filter of a first segment is connected to said second low pass filter of a second
5 segment.

12. The network as in claim 10, wherein said segments are connected serially by said outlets.

13. The network as in claim 10, wherein said high-frequency data paths of all of said segments are coupled together.

10 14. The network as in claim 1, wherein said low pass filter comprises a center-tap transformer and a capacitor.

15. The network as in claim 1, wherein said high pass filter comprises a center-tap transformer and a capacitor.

16. The network as in claim 1, furthermore connected to an xDSL
15 system.

17. The network as in claim 16, wherein said xDSL system is an ADSL system.

18. The network as in claim 1, furthermore connected to the Internet.

20 19. An outlet for connecting devices to a telephone line for telephony and data communications, the telephone line having at least one electrically conductive segment containing at least two distinct electrical conductors operative to conducting a low-frequency telephony band and a high-frequency data band, the outlet comprising: